

INTELLECTUAL DEVELOPMENT OF
DISADVANTAGED CHILDREN WITH AND
WITHOUT PRE-SCHOOL EXPERIENCES

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CHAPTER I

INTRODUCTION

Background of the Study

In 1954 the Supreme Court of the United States ordered an end to school segregation and created unprecedented dilemmas for the schools. Universal education requires that no group or individual be barred access to all opportunities for education. There is a segment of our population that has only limited access to the fruits of affluence and can be classed as disadvantaged. Many of these disadvantaged families live in areas often referred to as poverty pockets where housing is marginal, school services limited, recreation almost totally lacking, employment practices discriminatory, working conditions unstable and often demeaned, individual and family mobility high, and where the educational offerings are often the least palatable by law and conscience.

Educators and laymen realize that the public schools are often the vehicles for carrying middle-class cultural value systems. The schools are organized and administered by professionals who were reared and educated in the middle-class culture and ascribe to the value systems of the middle-class.

Education became large in a society given to the conviction of man's rationality. Believing that only the educated free man could be the responsible individual necessary to make the decisions to promote growth and success of the society, education to his capacity has been the goal for every citizen. Elastic class lines and opportunity for upward mobility were associated with securing compensation for one's efforts and freer access to education.

Education As an Equalizer

However, this sense of upward mobility has been to a degree restricted to groups of Americans. Education seemed to provide a transition for the mass of immigrants to the United States into a democratic society. He not reminded how some immigrant groups approached resettlement by playwright William Alfred's harsh view of the education for the turn-of-the-century Irish. In his play, "Hogan's Goat," the hero, Matt Hogan, quickly learns the new American community: "Get Power! Without it there can be no decency."

The opportunities for education and wealth have been available on a limited scale for some minority groups and the majority of non-white Americans. The Negro American's lot was generally the least satisfactory in society's provision for education. Inadequate educational opportunities, with the catalyst of the attitude of hopelessness make for the production of

grinding poverty, illiteracy, and behavioral value systems in conflict with society.

Communications Problems

The affluent segment of society communicates poorly with the deprived segment. Where there are racial, language, or skin color differences there are limited channels of correspondence. The family serves as an anchorage point in a complex society to interpret and to initiate the many cultural episodes to the individual. Interpretations in the family shape his unique perceptions and his particular interpretations of his environment. This is done more at the lower cultural levels by overt actions and example as contrasted to the more verbal activities of the less disadvantaged groups. The interpersonal relationships in the home set the stage for the development of the psychosocial processes which initiate the development of self-regulating behavior, attitudes toward self and others, value systems acceptable to the group and expectations from education and authority. The whole personality is developed by the family's behaviors and attitudes.

One of the most noticeable things about the disadvantaged groups is their use of language. Their speech patterns are unique, not only because of the limited number of words used and the non-standard English of these

living in cultural isolation, called "isolationist" by linguists, but also because most verbal communication is carried on in monosyllables. Action words are often used instead of complete sentences.

Kenneth E. Johnson (1967), Language Consultant for the Los Angeles City School Districts, said recently, "Most culturally disadvantaged pupils speak nonstandard varieties of English. The language handicap of culturally disadvantaged pupils is especially crucial because of the restrictions it imposes on academic achievement, vocational opportunity, and social advancement." These regional speech patterns contain so much unusual grammar and accent that English must be taught as a foreign language or a second language to make many of these members of minority groups qualified for employment. Sociolinguists stress that any attempt to change these speech patterns must be handled in a context of dignity. Psychologist Kenneth Clark (1955) considers speech differences, "One of the main, if superficial, racial and class irritants," but, "prejudice is made up of such little things, if one or two or three can be taken away, eventually the whole superstructure will fall."

3. Policies for Bilingual

The schools have problems in trying to educate children in less affluent and culturally different communities. Language skills, retention of knowledge and

intelligence are closely related and education is partially dependent upon the child's listening skills. The child must learn to listen selectively. Speech production and selective listening are learned skills and the child who knows growing longer and ill health is sometimes prematurely and unnecessarily alienated from people and from social institutions.

Pre-school education is being considered as a means of giving the disadvantaged child the experiences and cultural exposure necessary to enter school and life on a more equal footing with other children. Some of the programs involve the adults of the disadvantaged community in an effort to break the cycle of poverty. For the educator it will require strenuous effort, studied sensitivity, and an immense creativity to provide the adults to make their laps and the anti-image of deprivation.

Purpose of the Study

This study is the investigation of the expectations, expectations and attitudes toward education of the parents of disadvantaged children and changes in the children as a result of pre-school experiences. The following questions guide the investigator in making the study:

1. What are the educational expectations, expectations, and attitudes toward education of the parents of the disadvantaged child?

2. Are there any significant relationships between socio-economic factors and family educational expectations, aspirations, and attitudes toward education for children?

3. Do the children in the centers differ intellectually from the disadvantaged children not in centers?

4. What are the measurable differences in development as a result of educational experiences of the children in pre-school situations and those not in such situations?

5. Do younger children show greater gains from educational experiences than do older children?

Basic Assumptions

The basic assumptions underlying the investigation are:

1. The expectations, aspirations, and attitudes toward education of disadvantaged people are different from those of other social classes.

2. The lower-class assigns more value and willing to spend money on education than to others.

3. The disadvantaged see education less as a social experience and tend to assign less importance to academic and conduct grades and to set a lower number of years of school attendance for their children as compared to other social groups.

4. Language retardation results from the lack of enrichment experiences and seriously handicaps the disadvantaged child.

3. Children who have been exposed to the disadvantaged environment for relatively long periods of time do not profit to as great an extent from educational experiences as do younger children who have fewer years of such exposure.

Definition of Terms

1. Culture: the intellectual side of civilization, or with emphasis upon the intellectual aspect of material achievement, or to the degree of intellectual advancement of an individual; more specifically and technically, to the sum total of the arts, sciences, social customs and educational aims of a people, regarded as an integrated whole.
2. Society: a group of individuals living in a community, in mutual intercourse with one another, and cooperating in the various activities of the community.
3. Disadvantaged: a person who does not have free access or has not received the benefits of those aspects of the middle-class culture such as books, education, language arts skills, visits to zoo, library, places of historical interest, proper diet, proper medical care, and other attributions of the middle-class culture.

4. Head-Start Service: a county-operated service in a disadvantaged area (Palmetto, Florida) to give the children in the lowest socio-economic level pre-school experiences to which the middle-class group have an almost unlimited access.
5. Karnof Index: a means of classifying a family in regard to its social class membership. Four weighted components (Occupation x 4, Source of income x 3, Housing type x 2, and Dwelling area x 2) are assigned rating scores from seven to one and the sum of these weighted scores is the Karnof Number. This number can be converted to a social class or an Index of Social Class (I.S.C.).
6. Intact Family: as defined in this study, a family where both father and mother figure are present in the family constellation, but not necessarily the natural parent and not excluding the family where one or more members are absent in seasonal or migrant agricultural employment.

Procedures in the Study

This study follows a design that permits the identification of educational goals, aspirations and expectations of the parents of disadvantaged children who were

enrolled in a pre-school program as compared to a matched group of parents of disadvantaged children not enrolled in the program.

Families were selected for inclusion in this study when the following criteria were met:

1. The families considered to be disadvantaged included in the study were based on the requirements established for admission to the Multi-Service Center program.

2. The experimental group was composed of the families with one or more children enrolled in the Multi-Service or the Day Care Centers. The Peabody Picture Vocabulary Test score was available on each child.

3. The children in the study did not suffer any serious illness or any other unusual experience during the period of the study that could conceivably influence the usual life pattern.

4. All of the families used in the study were "intact families." However, no families were excluded where there were agricultural workers traveling in the migrant stream.

5. There were an equal number of families represented in the experimental and control groups. The experimental group was composed of children who were receiving schooling. The control group was composed of children who were not receiving schooling.

6. The percentage of non-Negro children was equally represented in both the experimental and control groups.

7. The children in the study were assigned numbers and assigned to a pool if they met the criteria for inclusion in the study. These numbers were drawn at random from each age group. The groups included children of ages 3, 4, and 5.

8. There were two or more living children in each family in the study. No only children were included and only one of a set of identical twins. Premature twins were not excluded.

9. Families were excluded from the study where the family income increased to a point that its yearly income was such that it then had access to more material possessions and was no longer considered to be disadvantaged.

10. There were equal numbers of male and female children represented in both the experimental and the control groups.

11. The families in the experimental and the control groups resided within the geographical area served by the center and had an equal access to the center for the same period of time.

12. The experimental and the control groups were matched to the maximum degree possible using the before-mentioned criteria.

CHAPTER II

HEREDITY IN SOCIAL BEHAVIOR

Social Ability of the Child and Education of the Parents

There are parental and social influences on the growth potential of the child. The social factors include family stability and general environmental conditions. Bayley (1953) found a relationship between the mental ability of the child and the education of the parents. The average number of years of schooling of the father and the mother before the birth of the child yields a better prediction of the child's intelligence at 18 years than the child's own test scores at under two years and curve-levies with test results at school entrance. Bayley and Jones (1957) found similar correlations for other social and economic factors. These findings were interpreted as indicating that parents provide the environment which stimulates intellectual growth in relation to their education and that the child acquires the intellectual status characteristic to the parents' cultural level. Von Kretzschmar (1952) made a study of the relationship between selected factors in the home environment and intelligence which showed a general relationship between socio-economic status and intelligence.

Environmental Influences

Whiting and Child (1968) noted that middle-class parents were the most strict in expecting the child to be trained early in cleanliness, "goodness," feeding and sleeping, and self-control. As a group, the lower socio-economic groups tend to be more permissive and delayed expectations of self-control, depending more on maturation rather than on training. The major factor in the development of attitude systems and expectations toward social institutions appears to be the total family pattern and the interpersonal environment of the home rather than any specific procedures used in child training. Miller and Swanson (1958) in a study of mothers and children under 19 found that the lower-class mothers tend to use direct punishment rather than the symbolic forms used by the more socially and economically advantaged classes. They are more likely to give the child less attention, delay toilet training, and use more flexible feeding schedules than parents in the middle-and-upper-classes. There are variations in attitudes toward sexual activities, social cooperation, respect for authority and property, and use of force and aggression, except in the area of sexual modesty for girls, where the lower-class tends to be more permissive and reflects a stereotyped image of salience and modesty. Sharif and Costell (1967) located the formation of self as the integration of numerous attitudes

expressed by the parents and forced by the child into broad, primitive relation tendencies.

Osser (1939) and others with a phenomenological orientation to human behavior describe how expectations, aspirations and values of the individual are directly related to his experiences. People with less adequate educational, social, and economic opportunities can be expected to have goals and expectations that contrast with those of people who have advantages and accept the philosophy of the schools.

Gilbert M. A. Interpretation of Behavior

Researchers have moved toward studying social behavior of individuals within groups and societies. The social has been in the perceptions of the various aspects of the world of people as members of social groups. Researchers became aware that data in the form of social behavior could not be generalized without careful translation from one culture to another. As the researcher moved out into the real-life proving grounds for his theories he became increasingly more conscious that individuals act or attend as a result of viewpoints, motives, attitudes, and expectations learned within his group. This ethnocentrism makes the individual's social group the ideal model and is used as an anchorage and a measure to judge and to compare values, norms, and behavior of other groups and individuals. To all engage in this

comparing activity. Because other value systems are in contrast to ours they are almost unanimously given an unfavorable evaluation. Maslow and Peley (1948) have stated:

Since all types of behavior are influenced by the subjects' situational background, it follows that psychological data obtained within any one cultural group cannot be generalized to cover all human behavior. Any statements offered under the heading of general psychology are not general at all, but are based upon human behavior as it develops within a single culture (p. 64).

There are levels of standards of living in any nation which are accepted by different social groups. In America there are generally acknowledged as not being fixed by heredity. There is opportunity for upward mobility. Education is looked upon as a means of obtaining goals. The fully expect school to reinforce the motivation toward becoming successful. Children have a strong tendency to react to the human element in any situation. The human elements in any situation are of crucial importance to understanding the influence the situations have on behavior and perception. Erikson's (1951) study of children's social expectations was an attempt to determine the nature of social perception and factors in perceptual development. He noted that children tend to read into what they see and experience the meanings they bring to the experience. These meanings are learned and are deeply rooted. They are developed by the time the child reaches the first grade

and remain largely unchanged until the late teens. As children interact with significant adults over a period of time the reciprocities and expectations become more stabilized and have genuine lasting significance. In efforts to attain certain goals and to deal with growing problems, role and status relationships become more codified and produce differential perceptual influences on experience and behavior. As the norms of the group are stabilized they become a part of a functioning value system which develops into major underpinnings for perception and behavior. Sewell (1946) states that:

The child must learn to carry the culture into which he is born. The culture today comprises a vast array of unarticulated knowledge, skills, attitudes, values, goals. It cannot be conveyed in neat bundles of subject matter; it must be assimilated in organic bits of experience which correspond to the maturity trends of the individual child. We can, if we wish, designate even with the noblest good education; for education in these modern days must be reconverted into a process of socialization (p. 196).

Male Identification Problems

The lack of a major male identification figure during the early formative years has been identified as a problem in some social groups. This is particularly true at the disadvantaged levels because of the high incidence of family disorganization and divorce. The problem is compounded where the father is absent for long periods searching for work or following the migrant worker stream.

The mother is usually employable as a domestic helper in the local community and represents the "stronger role identification model" than the often missing father or changing male figure in the father role.

It is more difficult in our society for a boy to master his appropriate sex role than for the girl. He must shift his identification to the male father figure, but in some communities fathers are a dim figure. Tyson and Henry (1954) noted that it is hard for boys to imagine what fathers do all day in plants, factories, and offices because they rarely observe these activities directly as is the case with the girl and the mother's housework activities. The lives of boys are arranged by women who "try to mold the boy's behavior into patterns of adjustment which they themselves as little girls and as adult women have experienced as satisfying and approved" (p. 174). The boy must learn to master the male role indirectly from the mother or pseudo-mother and as a result receives a female interpretation and female perception of masculinity. When the mother is the prime wage earner the possibility of the sex-role confusion is compounded. The female child has less difficulty in learning her sex role at the pre-school and primary school ages because of the predominance of females in both the home and the school. Gray (1964) found in a pilot study of the culturally deprived children that 60 per cent came from homes where

The father was missing and that in most of the families the responsibility for child care was shared by grandmothers, aunts, and older sisters. Bray put it graphically when she writes:

... the bulk of children we classify as culturally disadvantaged, are simply children of the poor. Being poor means to the mothers that all their energies are drained into subsistence activities; and again, because they are poor, the family structure is different and frequently lacks the presence of a wage-earning male (pp. 14-17).

At the lower social level the boy could find aggression more condoned and physical demonstrations of feelings more acceptable than it is at other levels. Myers (1957) found that middle-class children are expected to move from physical to more oral means of expression with maturity. Lower-class groups were more positive toward aggression and were more accepting of physical means of emotional expression. The lower-class as a group were more demonstrative and were permissive in their overt behavior and expression of both positive and negative emotions. Words were not substitutes for actions with them. Cultural expectations made authority based on force the rule.

Interpersonal Transactions and Personality Organization

Interpersonal transactions in the family provide the factors which govern the personality organization of the developing individual. His perception of personal identity and his personal world exert a major influence on

has awareness and experiences, values and expectations, has expression of basic needs and appetencies. The child's interests are channelized and encouraged by the social values he acquires as he develops. He becomes more aware of the various roles he fulfills in the home, class, peer group, and economic class. He becomes increasingly selective of those activities and interests which he finds meaningful. Certain activities are ruled inappropriate, unusual, "okay," "avoid," and "not for me."

The social group permits individuality of expression within certain limits. A system of checks and balances is in operation as the group can punish variations in behavior beyond the prescribed limits or failure to adapt to the group-approved values. These social expectations and pressures direct behavior defined as acceptable within a given social group. Davis (1941) points out in the lower-class white or Negro society:

. . . a child lives in a different cultural environment; he is surrounded by people who have habits quite different from those of lower-middle-class, and who have demands and set different goals before him. . . . The lower-class child, however, learns not by being rewarded in these peerage relationships and that the middle-class goals and goals are neither likely nor desirable for one in his position. He discovers by trial-and-error learning that he is not going to be rewarded in terms of these long-range status goals, at he is a "good little boy," if he avoids the signal and recreational opportunities available to him in his lower-class environment, or if he studies his lessons. In this learning, he is often more

realistic than his teacher, if one judges by the actual cultural role which the teacher affect him (pp. 143-154).

A. Failure Systems

There are problems in everyone's life that have no immediate solution. The individual who has had many failures in mastering problems of adjustment will be less likely to engage enthusiastically in any new learning experience set before him. He is unable to see the purpose of the task or the task clearly. As a result he can hardly be expected to marshal his skills and energies in solving toward solutions of problems. When there are too difficult for him to deal with, substitute activities are employed to reduce feelings of inadequacy, insecurity and frustration. Many of these substitute-action patterns and defensive mechanisms employed by the lower-class youth are in conflict with the social expectations of the school and with society. Learning is multi-motivated and multi-objective. Bagdikian (1995) states that through activities the individual "puts into overt expression and affect his consciousness about situations and events, including his own views and emotions," (p. 71).

B. Value Systems in Conflict

Most teachers in public schools have been reared in a middle-class culture. Their values impose difficulties in understanding lower-class children. A teacher

is often in a quandary about what to do when the lower-class youth appears to be satisfied with a performance which to the teacher is poor or mediocre. Hilgard and Russell (1950) write:

. . . school must attempt to maintain some sort of balance between the immediate compelling needs and interests of the pupils and the demands, both immediate and more remote, of the society in which the teacher and the pupils live. . . . There is no person for all of the ills of modernness, discipline and rebellion encountered in children placed in modernistic school environments. . . . The evidence seems rather clear, too, that motivation is not something applied apart from the learning situation but is an integral part of it (p. 57).

Those circumstances which energize, select and direct behavior are the result of growing up in a culture that has assigned certain roles to individuals and placed certain demands upon them. The consequences are made more baffling to both teachers and pupils because the different subcultures in our society expect different things of children. Learning is sometimes defined as the result of the individual's responding discriminatively to situational cues in the presence of aroused drives and receiving external or symbolized rewards.

A study by Heister (1957) showed that children can be taught to tolerate failure. He found children can be taught to accept failure as a link with ultimate success rather than to be impatient or to accept lasting failure. A teacher often hesitates upon repeated attempts at activities

For which the child is not qualified. Society is often kinder than the school to the lower-class individual by not insisting upon this type of repetition and adequate activities.

Interests and Motivations

The child, to learn effectively in school, must be both motivated and verbal. The disadvantaged child is usually deficient in both of these requirements. He tends to be disinterested in those activities in which his performance is less than adequate. His interests and likes grow and become channelized along with developing skills and abilities. Language and conceptualization have value in education as mediums of instruction but there are inherent dangers as noted by Dewey (1933):

The premium put on the scholastic upon attainment of technical facility, upon skill in producing external results, after changes advantage into positive deprivation. In manipulating symbols so as to result well, to get and to give correct answers, to follow prescribed formulae of analysis, the pupil's attitude becomes mechanical rather than thoughtful; verbal schematizing is substituted for inquiry into the meaning of things (p. 172).

The problem appears to require that the deprived child receive those experiences prior to coming to school that typically occur in the middle-class home. Studies show the average retardation of lower-class children at two years in the first grade, placing the child at a considerable disadvantage when he comes to school and setting

the stage for failure. Gray (1964) noted that language and speech were seldom resorted to in the deprived home, child were evinces behavior that was non-demanding, and resents and discipline evoked behavior which was withdrawing and inhibited exploring the environment. Verbal intercourses was typically short and explosive and responses of the "What up, "Try it," form were usual means of inhibiting behavior (p. 14).

Influence of Pre-School Programs on Intellectual Development

Pre-school programs for children from deprived homes provide intellectual stimulation essential to improved school performance and basic language development. Such enrichment programs as the Higher Horizons Project in New York City, Headstart, and others can provide intellectually stimulating experiences that are relatively common in middle-class homes. They may have significant bearing upon intellectual development and stimulation of the mind. There is research to show that children's intellectual development is influenced by environmental circumstances during the crucial education periods. The question now appears not to be whether the intellectual functioning can be changed under extremely impoverished or enriched circumstances, but rather how much can mental functioning be influenced and changed by specific conditions and what these specific conditions are that tend to promote or to retard mental development.

Studies of the intellectual development of foster children done by Skodak and Skeels (1946) have contributed to knowledge in this area. These studies are interpreted to mean that biological factors have little bearing upon the later mental development of children who are removed from their parents at an early age. Skodak (1949) writes:

. . . if there is an hereditary constitutional factor which sets the limits of mental development, these limits are extremely broad. Within these, environmental factors can operate to produce changes which for ordinary purposes may represent a shift from one extreme to another of the present distribution of intelligence among children (pp. 132-133).

Nutrition, health care, rest and play time activities that center around a wide range of experiences that implement and extend classroom learnings are emphasized in these studies at this level. Reported gains in test performance show an increase in the ability to think in abstract terms and an improvement in general in social and emotional adjustment. The Skodak-Skeels' data reported substantial and durable changes in mental functioning when children received special pre-school programs. The experimental evidence suggests ways in which environmental aspects of these programs may be translated by the individual child into appropriate behavior leading to increased mental functioning. Intellectual curiosity is fostered by the variety of experiences and expanded opportunities are available for utilizing the abilities they

possess. Mental growth is enhanced by their efforts and struggles with the enriched resources at hand and specialized experiences. Binet and Simon assume that the improvements in test performance represent a real and lasting improvement in intelligence which will persist in later years.

It has been demonstrated that individual differences in mental age increase with age. That important concept is illustrated in Figure 1, where the mental age and I.Q. scores are plotted for different chronological ages. The mental age doubles from grade one to six and again by the time a child would have progressed through high school. The child with the less than normal mental ability falls further behind the intellectually normal and the bright children as they move in school.

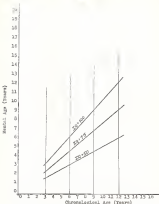


Fig. 1 Increase with chronological age of differences in mental age between children of different intelligence quotients.

Source: Adapted from Thompson et al., Psychological Pathology, 1959, p. 6.

CHAPTER III

THE DESIGN OF THE STUDY

Locale

Manatee County is one of the sixteen county school systems in Florida that maintain a program from kindergarten through the second year in college. The Manatee County Board of Public Instruction is located at Bradenton, Florida, where the investigator was employed as the Director of Guidance, Research and Testing.

Prior to the collection of data in Manatee County, considerable time was spent in establishing understandings with personnel in the school system who were to be involved in the program for the children who are subject of the study. The author met several times with the Director and the Assistant Director of the Multi-Service Center to discuss the details of the study and its expected benefits to the county as well as its expected contributions to the body of knowledge about the educational experiences and aims of the disadvantaged. Several meetings were held with the principal of the elementary school in the community and with the director of the summer program to be held at that school. The teachers at this elementary school provided the names and addresses of a large

group of children from which the control group for the study was drawn.

The Multi-Service Center

The Multi-Service Center attempts to give the children of the disadvantaged families a rich variety of experiences, individual-nutritional attention, personal attention by a trained adult in small group activities or individual one-to-one relationships, experiences to improve language and skills, and a more positive personal identity with the goal of helping these children to gain those experiences necessary for them to enter formal school programs on a more equal footing with other children.

The title of Multi-Service reflects the agency's desire to serve every member and age level of the disadvantaged family. The Center has the following services for the adults and those beyond school age:

1. Vocational guidance
2. Adult education
3. Help for caring for very young children of working mothers
4. assistance in finding employment
5. counseling in personal problems
6. Help in securing services for physical problems
7. Programs directed toward improved attitudes and expectations toward housing, education, racial ability, racial groups, etc.

11. A comprehensive home economic program for better utilization of the resources of the family and to broaden their knowledge of home management with emphasis on nutrition and diet, dress and clothes making, food preparation, budgeting, sanitation and housework, first aid, etc.
12. Opportunities for the parents to become more involved with their children and with community activities.

The Instruments Used in the Study

A questionnaire was constructed to gather information about the children in the experimental and control groups, about the socio-economic situation of the parents, and about the parents' attitudes toward schools and their expectations for education for their children. Part I of the questionnaire contained twenty five items relating to the child. Part II contained twenty five items about the parents' views of school and their expectations for their children. This questionnaire is included as Figure 2.

The Peabody Picture Vocabulary Test was administered to the subjects in the study. This instrument has been used to obtain mental ages for children enrolled in Headstart Projects and other programs for disadvantaged children. Each child in the study was tested with one

2009 2010 12 31

TABLE 1. *Summary of the 1997-1998 season*

- | | | |
|-----|------------------|-----|
| 1.) | Comptroller | 85% |
| 2.) | Source of Income | 83% |
| 3.) | Working Type | 82% |
| 4.) | Building Area | 82% |

11 12

- 1.) Name of respondent(s) _____
- 2.) Relationship(s) to child _____
- 3.) Address _____
- 4.) Name of child _____ 5.) Sex 1__ Male 2__ Female
- 6.) Age of child _____ Birthdate _____
- 7.) Place of birth _____
- 8.) Race of child: 1__ Negro 2__ White 3__ Other (name) _____
- 9.) How many other children and ages? _____
- 10.) How many in school and grades? _____
- 11.) Distance to school: 1__ under 1 mile 2__ 1 to 5 miles
3__ 5 miles or more
- 12.) Bussing necessary? 1__ yes 2__ no
- 13.) Major illnesses of child (name) _____
- 14.) Is more than one language spoken in the home?
1__ no 2__ yes Principal _____
- 15.) Grade completed by father? _____ Mother? _____ Average _____
- 16.) Principal occupation of major wage earner _____
- 17.) Skill level 1__ Unskilled 2__ Semi-skilled 3__ Skilled
- 18.) Reported income last year:
1__ Under \$2,000 2__ \$2,000 to \$3,000 3__ \$3,000 or more
- 19.) Own home? 1__ yes 2__ no 20.) Own car? 1__ yes 2__ no
- 21.) U.S.B. 1__ yes 2__ no
- 22.) Lights and/or plumbing? 1__ yes 2__ no
- 23.) Family mobility in past 12 months:
1__ no moves 2__ 1 to 5 moves 3__ 5 or more moves
- 24.) Family mobility in past 5 years:
1__ no moves 2__ 1 to 5 moves 3__ 5 or more moves
- 25.) Family moved about the following number of miles or more:
1__ less than 1 mile 2__ 1 to 50 miles 3__ over 50 miles

PART II:

- 1.) What grade do you expect the child to complete?
1 ___ 1 to 4 2 ___ 7 to 9 3 ___ 10 to 12
- 2.) What additional training/education do you expect the child to have? 1 ___ apprenticeship on the job 2 ___ vocational
3 ___ college
- 3.) What grade average do you expect the child to maintain in academic subjects? 1 ___ 3 or higher 2 ___ 2's
3 ___ less than C
- 4.) What grade average do you expect the child to maintain in attendance in school? 1 ___ 3 or higher 2 ___ 4's
3 ___ less than C
- 5.) What special school subjects do you feel have the greatest utility and value for your child? (name _____)
1 ___ language arts 2 ___ Natural Sciences 3 ___ Social Sciences
- 6.) Which of these subjects would you consider most important for your child? (list priority)
1 ___ arithmetic 2 ___ education 3 ___ nothing
- 7.) In your opinion, what your child will learn in school will be: 1 ___ much help in future 2 ___ some help 3 ___ little help
- 8.) What future need of the child do you expect the school to meet? 1 ___ social 2 ___ personal 3 ___ other (Explain _____)
- 9.) In your opinion, what your child will learn in school will meet his present needs
1 ___ a lot 2 ___ some 3 ___ little (Explain _____)
- 10.) What present need of the child do you expect the school to meet? 1 ___ academic 2 ___ vocational 3 ___ other (Explain _____)
- 11.) Are there subjects that could be omitted from the school program? 1 ___ yes 2 ___ no (Name _____)
- 12.) Are there subjects that should be added to the school program? 1 ___ yes 2 ___ no (Name _____)
- 13.) The present school programs are: 1 ___ too modern
2 ___ about right 3 ___ too old fashioned
- 14.) The discipline in our schools today is:
1 ___ good 2 ___ average 3 ___ poor
- 15.) The schools should use physical punishment:
1 ___ less 2 ___ the same 3 ___ more
- 16.) Homework for a child is of the following value:
1 ___ a lot 2 ___ some 3 ___ none
- 17.) The amount of homework a child should bring home should be:
1 ___ a lot 2 ___ some 3 ___ none

- 18.) A place for a child to do homework is of:
 1. _____ great importance 2. _____ little importance
 3. _____ no importance
- 19.) The financial and social position of the parent determines the way the child is treated in school:
 1. _____ very much 2. _____ some 3. _____ little or none
- 20.) You plan to attend PTA meetings:
 1. _____ most of the time 2. _____ some of the time
 3. _____ none of the time
- 21.) You plan to attend conferences, open house, and other activities:
 1. _____ most of the time
 2. _____ some of the time 3. _____ none of the time
- 22.) Free and fixed pricing activities of the school require the parents to pay:
 1. _____ too much money
 2. _____ about the right amount 3. _____ too little money to meet the needs
- 23.) A child should be allowed to wear loose clothes:
 1. _____ all 2. _____ needed at home 3. _____ other (explain _____)
- 24.) The after-school activities (athletics, clubs, etc.) provided by the school should be:
 1. _____ a lot 2. _____ some 3. _____ none (explain _____)
- 25.) The tests and testing programs (other than classroom tests) should be:
 1. _____ increased in number 2. _____ remain the same
 3. _____ decreased

Date of Report: _____

File: _____

Fig. 2 Parent Questionnaire, (cont.)

form of the Peabody Picture Vocabulary Test (PPVT) and three months later re-examined with the alternate form of the instrument.

Gathering the Data

During the preliminary phase of the study the records of the Child-Service Center and the Day Care Center were consulted to obtain a list of families which could be included in the experimental group. The families of the control group were obtained from the application forms for admission to kindergarten and grade one for the 1966-67 school year at both Memorial Elementary School and Valencia Elementary School and from a survey of the children in the community completed by the staffs of these two schools.

The next step was to contact the families individually and to complete the family questionnaire. At that time permission was obtained to test the children and a future date set for the re-test with the alternate form. The final step was to re-test the experimental and the control group children and to identify any conditions that might influence the study. Facilities for electronic data processing at the University of New Mexico were made available for statistical treatment of the data.

The Population Surveyed

Subjects for this study were 416 pre-school children who were families considered to be disadvantaged. There

were 108 males and 108 females. There were 72 three-year-olds, 72 four-year-olds, and 72 five-year-olds. There were 18 in each of the groups of experimental and control boys and girls at each level. The control and the experimental groups were quite evenly matched on a number of variables, as is shown in Table I. This table presents information about the families of the children in the experimental and control groups.

Response to the Questionnaire

The data to complete the parent questionnaire was supplied for the most part by the mother and usually by the mother alone. The father, even when present, had little to contribute to the interview. The Delacorte-Farrish committee contributed the largest number of the subjects to the study.

Tabulation of the Data

The parent questionnaires were collected and checked to make sure that all responses were appropriate to the questions. The information from all multiple-choice type questions on each questionnaire was transferred to summary sheets. A code number was assigned each child to identify the child by age, sex, and control or experimental group. The intelligence quotient determined by the first and second administrations of the intelligence test were entered on the summary sheets. The code number was also

entered on the parent questionnaire for identification of the family. The identification number and the summary data were then placed on I.D.E. 1730 sheets and punch cards were made. A print-out of the raw data was made to determine if the data had been correctly transferred. Correlations were made between Part I, Personal Data, and Part II, Aspirations and School Expectations, of the parent questionnaire; and between individual items of the questionnaire and other variables.

The first step in the treatment of the data, after the information from the parent questionnaire had been transferred to the summary sheets, was to tabulate a summary of responses by control and experimental groups, and from these group summaries to tabulate a combined summary.

Table I presents information on families in the study. The experimental and control groups are shown to be equated on variables such as education of parents, social class membership, Turner classification, number of children in the family, mean number of children in school for each family represented, and on family income. There are some differences in the mean number of years in school for the parents of children in the control and experimental groups, but the differences are not significant. The families are all in the lower-lower level, as classified under the Turner system. The Turner numbers are almost the same for families in the control and experimental groups. The numbers of children in the families in each group are almost the same as are the mean numbers of children in school.

The combined summary of the information from the parent questionnaire is presented in Table IV in the appendix. This information was summarized as a basis for comparison of the groups. It was used to return data from the questionnaire to the administrative and supervisory staffs of the Hamilton County Schools. The summary includes percentages of responses to each question as the number of responses.

TABLE I

Factors Found in the Population in the Study

	Control Group (N=500)	Experimental Group (N=104)	Quarantined Group (N=218)
Floor	54	54	108
Females	54	54	108
Mean education of fathers (in years)	7.9	8.4	8.2
Mean education of mothers (in years)	9.5	9.9	9.7
Mean education of parents (in years)	8.7	9.3	9.0
Social class membership as determined by Bernier system	Lower- Lower	Lower- Lower	Lower- Lower
Wagner classification	E++	E++	E++
Mean Family Wagner Index	69.8	69.5	69.7
Total number of children in family	51.9	50.9	50.9
Mean number of children per family	4.8	4.7	4.8
Mean number of children in school per family	1.9	2.2	2.0
Mean reported income per year per family	\$2,300*	\$2,300*	\$2,300*

* Rounded to nearest \$50.00.

CHAPTER IV

ANALYSIS OF DATA IN THE STUDY

Information from Questionnaires from Parents of Children in the Experimental and Control Groups

The majority of the subjects lived within five miles of the Multi-Service Center. One-fourth of the children in the study were bus students. Nine out of ten of the children in the study were born in the area. The children in the study were predominantly colored. Twelve per cent of the children had suffered a major illness, one child was found to have active tuberculosis and one was asthmatic. A high percentage of the experimental subjects, 70.34, had dental caries with many in need of immediate dental care. One of five families had at least one move during the past year. Two of five families had lived in the same house for five years. In spite of the mobility of the population in the study, two-thirds had moved less than five miles and nine-tenths of the moves were fifty miles or less. The families had moved, but these moves had been confined to a relatively small geographical area.

Part II of the Parent Questionnaire deals with the parents' educational opportunities and expectations for their children. Almost nine out of ten parents wanted a

high school education for their child and over half desired additional vocational education. Almost one-third of the parents wanted their children to attend college. The course of study for the college-bound male was usually a general program while the girls usually followed a medical-dental program. Fully three-fourths of the parents in the study expected their children to maintain at least a B average in both academic subjects and citizenship. They felt that the language arts had the greatest value and utility for their children. Reading was selected as the most important school subject by a margin of more than two to one.

Three-fourths of the parents felt that education would be of much help in the future. Over half of the parents felt that the school was meeting the present need of the child to a considerable degree and that the school should continue to meet the educational needs of the child. More than two-thirds of the parents did not see the schools as an agency for vocational training. They expressed satisfaction with the way the school was conducting the academic education of their children. Only a very small percentage suggested school subjects that could be omitted from the program. These omissions centered around the enrichment courses, with art and music being most frequently mentioned. Almost one-fifth of the parents who responded had specific suggestions for courses to be added to the

current offerings. They suggested that the social studies area include the place of the Negro in American history and the contributions of the Negro to America. In the area of the language arts they wanted emphasis on the music and literature of the American Negro. An overwhelming number of parents said the current educational programs were satisfactory and neither too old-fashioned nor too modern.

About one-half of the parents stated that the discipline in the schools was average and that physical punishment should be continued at the same level as at present. Very few parents wanted the amount of punishment reduced, but two-fifths would be agreeable to increasing physical punishment. Homework was universally accepted as being desirable with the majority of parents suggesting one hour per day at the minimum at the elementary school level. Most of the parents would provide a place for the child to study and more than four out of five parents stated a specific time and place to do homework was very important. Nearly one-fifth of the disadvantaged parents felt that their financial and social position in the community had a direct bearing on the differential treatment of their children in school. The remainder were almost equally divided about this having some bearing or no bearing on the treatment of their children in school.

Considerably more than half of these disadvantaged parents attend P.T.A. and other school meetings when possible. These parents perceive these functions as being important and make a serious attempt to attend in spite of the problems of long working hours, proper dress and attire, and self-consciousness at such affairs. They were quite verbal in wishing it would be a great help to them if these school functions were held on the weekend rather than school nights. Sunday afternoon was frequently mentioned as a better time.

Slightly more than one-third of the parents of these disadvantaged children felt that the school required them to pay too much money for fees and other fund-raising activities. The average family income for both groups was \$2,300 per year, yet almost two-thirds felt they were paying the right amount for the services provided by the school. A number of parents stated that it was difficult for them to pay all of the fees at one time and that it would be very helpful if they could spread these payments over several months. These parents who had a larger number of children in school were frequently expressed the feeling that the fees and other monies required by the school placed an unusually heavy burden on them.

Only one-fourth of the parents in the study would allow their children to stay out of school for any reason other than illness. These children are trained to perform

a large number of household duties and are needed at least quite often to carry on these duties.

There was quite a bit of criticism expressed about the homemaking program in the school. These parents said it should be a more useful and meaningful program as most of them already had training in preparing meals and taking care of younger children. They felt that the homemaking program should deal more with good nutrition, improved diets, pre-natal and post-natal care of expectant mothers, practical nursing, health, and safety training, rather than the usual program offered in school.

The parents also felt the school should provide some after school entertainment and activities for their children. The less than one-third who stated a large number of after-school activities qualified this by saying the community had little for their youngsters to do and the school was expected to fill the gap. A very frequent criticism of this area of school activities was the time of night these programs terminated. They often stated that they did not want their children on the streets after a certain hour and that these programs interfered with the child doing his assigned homework.

The controversy dealing with invasion of personal privacy by educational testing programs appears to have had little impact upon this segment of the population. Only 16 percent of the parents expressed any concern

about changing the standardized testing program in the school and only one family wanted the number of tests reduced.

The parents of families in this study expressed a generally favorable opinion of the school and the manner in which the school was conducting the business of educating their children and youth. They perceive education as a means of upward social mobility and are strongly behind the idea of an adequate education for their children which far exceeds their own average years of formal education.

Comparison of Responses of Parents of Children in the Experimental and Control Groups

The subjects in the study were divided into control and experimental groups, depending on whether they were or were not enrolled in seven weeks of pre-school education. The children in the control group had not had this educational opportunity. It was open to them, but their parents had not taken advantage of it. Following the completion of the parent questionnaire, a summary was prepared showing responses to each item of each multiple-choice type question for parents of children in the control and the experimental groups. After summarization of the responses for each group, means were weighted and means and/or percentages computed according to the procedures already outlined. The summaries and means of the

responses for both groups are given in Table 7 in the Appendix. This table included all questions except 4, 5, 6, 8, 10, and 13 of Part I - Parent Questionnaire. These did not lend themselves to use for comparative purposes but were used in Table 1 and in determining the Warner Number for social class membership.

The differences in the means were computed. To determine the significance of the parental responses to questions an analysis of variance was applied to each question and a sum of squares computed. From this the mean square was computed to test the significance of the differences. These estimates of variance were compared by dividing the within between mean square into the total variance mean square to obtain the *F*-value, the *t*-value, and the probabilities. Table XI in the Appendix contains this information for each of the 15 questions from the control and experimental groups. The responses of the parents in each group were not significantly different. None of the 15 questions summarized in Table IV were significant at the .05 level.

Analysis

The Peabody Picture Vocabulary Test measured gains in intellectual functioning made by the two groups at the end of the study and a "t" test on the mean gains of the mental groups was used to analyze the data. Of the two analyses, none were significant at the .001 level.

of probability and was significant at the .002 level. As a group, the four-year-old experimentals showed the greatest gains, followed by the five-year-old experimentals and the three-year-old experimentals in that order. Separating the subjects by sex and age into subgroups, the four-year-old experimental girls made the greatest gains. The five-year-old experimental boys made the next greatest gains. The combined groups of the experimental subjects had a mean gain in I.Q. of 18.583 points as compared to a loss of 1.045 points by the combined control subjects. That was significant at the .001 level.

Table II shows the mean gains in I.Q. points for each subgroup, critical ratios (*t*), and the probabilities (*p*) of difference, and the same data for the age groups and the combined groups. Table III gives the mean initial I.Q. and the I.Q. as re-test by age, sex, and control and experimental group.

The usual assumption is that re-tests with the same instrument generally show two effects, regression and practice effects. The re-test scores remained at approximately the same level as the pre-test scores for the control group. This would seem to deny both the practice and regression effects for the children in this group. The two forms of the test used were equivalent.

TABLE II

Mean Gain in Intellectual Functioning as Measured
by the PPVT by Treated Groups From Pre to
Post-Test, Critical Values (t), and
Probability of Differences (p)

Group	Mean Gain Experimental	Mean Gain Control	t	p
3-year-old boys (N = 18 pairs)	8.466	-0.411	7.728	.001
3-year-old girls (N = 18 pairs)	9.896	-0.896	4.417	.001
4-year-old boys (N = 18 pairs)	10.673	1.778	2.782	.002
4-year-old girls (N = 18 pairs)	12.533	-1.167	3.983	.001
5-year-old boys (N = 18 pairs)	11.594	-3.000	4.813	.001
5-year-old girls (N = 18 pairs)	11.121	-3.333	4.176	.001
3 year-olds combined (N = 36 pairs)	8.659	-0.333	4.387	.001
4-year-olds combined (N = 36 pairs)	11.354	.366	3.008	.001
5-year-olds combined (N = 36 pairs)	11.333	-3.124	4.943	.001
All age levels combined	10.983	-1.046	9.587	.001

TABLE III

Mean Initial I.Q. Scores and Post-Test Scores of Control and Experimental Groups by Age and Sex

Age	Mean Initial I.Q.	Mean Post-Test I.Q.
1		
Group 113 (N=18) Control boys	69.6	79.8
Group 123 (N=18) Control girls	77.8	77.8
Group 213 (N=18) Experimental boys	64.1	92.8
Group 223 (N=18) Experimental girls	65.2	85.1
4		
Group 114 (N=18) Control boys	69.9	71.1
Group 124 (N=18) Control girls	66.4	69.2
Group 214 (N=18) Experimental boys	68.3	78.1
Group 224 (N=18) Experimental girls	68.4	61.2
7		
Group 115 (N=18) Control boys	64.2	61.8
Group 125 (N=18) Control girls	67.7	64.4
Group 215 (N=18) Experimental boys	73.2	84.8
Group 225 (N=18) Experimental girls	74.4	83.6

CHAPTER V

CORRELATIONS OF PARENTS' RESPONSES TO ITEMS ON THE QUESTIONNAIRE

The data gathered in the use of the parent questionnaire were subjected to additional statistical study to investigate the educational expectations and aspirations of the parents of disadvantaged children. The Warner Social Class Index Number, the responses to the questions on Part I of the questionnaire, except Question 4, name of the child, which was replaced by a code number and Question 16, principal occupation of the major wage earner, which was used to determine the Warner S.C.I. number, all 25 responses of Part II of the questionnaire, the initial I.Q., the re-test I.Q., the sub-totals for Part I and Part II, and the grand total of the questionnaire were transferred from the summary sheets to I.P.M. 1250 answer sheets. Thus, there were 56 sheets to which parents had responded. Information was added to each I.P.M. 1250 sheet to identify the subject, control or experimental group, sex, age level, and a page number to keep the six pages for each subject in sequence. From these I.P.M. 1250 sheets punch cards were prepared and print-outs were made. A program was written to obtain means and variances on each of the 56 variables for the control

group, shown as Table VII and the experimental group, shown as Table VIII, both in the Appendix. The program also obtained intercorrelations between each of the 36 variables.

Two coefficients had been computed from independent samples as measures of the same variables. It was necessary to know whether there was a greater difference between the two coefficients of correlation than might result through random sampling on a single population. One method of approximation is to transform coefficients of correlation to Z-values to obtain normality of a sampling distribution with linear relationships. Where the standard error of a difference between two Z coefficients was significant at the .05 level or better the correlation between the two variables was investigated.

Items in which the correlations were significant at the .05 level are presented and possible explanations for them are offered. The numbers refer to the variables shown in Tables VII and VIII. Perhaps some of the relatively high correlations between items in which parents of children in the control and experimental groups responded have little meaning, but they suggest further areas for study in the development of school programs for children of lower class parents.

Variables with High Correlations

One - The Warner Social Class Index Number has a moderately high correlation with the skill level of the

principal wage earner in the families in the control group. It does not approach significance in the experimental group. The Warner number of the control families correlates with the feeling that the parents in these families have about how the school is meeting the present needs of their children.

Two - The number of respondents in the control group has a high correlation with the respondents in the experimental group in suggestions for adding school subjects to the curriculum.

Three - The relationship of the responding parent to the child was significant. Mothers of children in the experimental group wanted additional education and training for their children. They expressed satisfaction with the present school offerings. A small number wanted subjects now taught deleted from the curriculum.

Four - More of the control families than the experimental families lived within walking distance of the school. Parents of children in the control group wanted the school to provide after school activities for their children.

Seven - The place of birth of children in the experimental group had a correlation with the race of the family. There were more out-of-city and out-of-state children of the Negro race in the experimental group than the control group.

Eleven - The distance from school of homes of children in the control group appears to have a higher correlation

with their parents keeping the children out of school for various reasons in spite of the proximity of residence to the school. A second line of interest is that the more distant the child's residence the less the parents expressed the idea that the school should furnish after school activities for him. Parents of children in the control group, living closer to the school, perceive the school more as a community center. Their definition of "even" activities that they want the school to provide for their children is quantitatively greater than the "even" activities that the parents of children in the experimental group want for.

Twelve - The parents of children in the control group placed less emphasis on grades in citizenship in school than did parents of children in the experimental group.

Twenty-seven - As previously noted, mothers of children in the experimental group expressed an interest in their children obtaining additional training and education beyond that they believed to be presently available.

Twenty-six - Parents of children in the experimental and control groups responded to the item on grades that they desired their children make in citizenship as a number which caused it to correlate highly with the grades they desired in academic subjects.

Thirty-two - The parents of the control children responded differently than did the parents of the experimental children in their opinion of the value of formal education in the adult life of their children. The relationship between the variable and the educational level of the father and his occupational skill level is negative. The less formal education he has and the lower his skill level, the less he sees education as a valuable experience for his children. The control parents who see education as being of value for their children asked for higher academic achievement than parents of children in the experimental group.

Thirty-five - The parents of children in the control group perceive the function of the school as developing academic abilities. This was shown in the importance they placed on high grades in scholarship and citizenship.

Thirty-eight - The parents of children in the experimental group have positive feelings about the present school offerings. This correlated with the skill level of the principal wage earners. The parents of children in the control group expressed a desire for the traditional school. The subjects they would have added to the curriculum were those that were offered in the past.

Forty - The control group parents expressed a strong desire for stricter discipline in the schools. This correlated with their belief in the use of physical punishment

as a means of discipline. Parents of children in the experimental group generally expressed the same view, but not as strongly.

Part-*four* - The parents of the control children feel that their social and financial position has some effect upon how their children are treated in school. This factor could be related to the lower education level of the control group parents and the skill level of the principal wage earner in the control group family. The lower the education level and the skill level of the parents of the control group, the more sensitive they appeared to be to the real or imagined differential treatment of their child in school.

Part-*five* - The control and experimental group parents gave different responses to the item on attendance at P.T.A. meetings. The educational level of the control parents correlated negatively with their responses to this item. The experimental group parents' responses correlated positively. A common remark from the control parents was that the time for such meetings, usually in the afternoon or on a school night, made it impossible for them to attend. The parents worked long hours and had many things to do to prepare for the next day. They would like functions for parents scheduled for Saturday or Sunday so that they could attend.

Part-*six* - The control group parents who attended open house and conferences at school were more positive in

their view that the school was meeting the present needs of their children. These parents were in the group who believed that children's present needs are of an academic nature.

Forty-eight - The parents of children in the control group feel that a child should stay home when needed for reasons other than illness. This may be a judgment on the value of formal schooling. In contrast, the parents of children in the experimental group see illness as the reason for school absence.

Parents who felt regular school attendance was important and that the child should be in school unless ill had a higher expectation for academic and citizenship grades.

These and other correlations between items on the parent questionnaire suggest investigations into the backgrounds and attitudes of parents in the lower socio-economic classes whose children are eligible for pre-school experiences. There may be patterns of behavior in parents which must be taken into account in providing educational experiences for young children.

CHAPTER VI SUMMARY AND CONCLUSIONS

The writer developed questions to guide the investigation into the effect of pre-school experiences on the intellectual functioning of young children from homes rated as disadvantaged and into the attitudes of the parents of the children and the parents' expectations as a result of school experiences for their children. Answers to some of the questions posed can be found in the information gathered in this study.

The subjects were 166 matched pairs of children who were tested at the beginning and the end of a seven weeks period. During this time, one member of each pair attended a nursery school; the other did not. In all measured respects, the home conditions of the children in each group were essentially the same. Their mean chronological ages at the time of the initial test differed by only a small fraction of a month. The average attendance was better than 50 per cent for the group enrolled in nursery school. The Peabody Picture Vocabulary Test, Special Edition, Forms A and B, were used for the initial and final testing. A fifty-item questionnaire was completed by the parents of all of the children at the time of the initial examination of the children. All examinations

and the administration of the questionnaire were done by an examiner who had no other contact with the children.

The interval between hearings was slightly more than three months for each group. All of the children had the same exposure to the tests used to gather data in the study.

Changes in Mental Functioning

The children who attended the pre-school program made significant gains in intellectual functioning as measured by the tests compared to children not in the pre-school program. The stimulation provided in the pre-school environment appears to explain this finding. Children not in the pre-school program manifested a different pattern on the initial and terminal tests, and showed loss of intellectual functioning, insofar as the Peabody tests were used, in the period of the study.

The four-year-old girls and the five-year-old boys showed the greatest gains in intellectual functioning as a result of the period of pre-school attendance. Perhaps this is because of the different maturational rates of boys and girls. However, consideration must be given to the possibility that the same environmental factors may have different values at different age levels. It may also be true that different environmental factors may have the same values at different age levels, requiring that educational techniques change as the child grows if these techniques

are to be stimulating. Changes in the developmental processes in the individual appear to be related to the maturational level of the child at the time that certain educational activities are presented to him. Environmental conditions appear to produce more change when certain maturity levels are reached.

In this study, children in the experimental groups who attended pre-school had a mean gain of ten I.Q. points between the two administrations of the Intelligence test. If these gains are lasting and there is a continuing effort by the school to consolidate them, it is conceivable that these children have changed the track of their mental development. The mean base line of the new track would cross the normal I.Q. plot by age twelve and be slightly above normal by age eighteen, assuming no additional gain of increments of mental functioning. This brings to mind a series of fundamental questions not answered by the study, but worthy of research.

1. Can all children benefit by pre-school and other enrichment opportunities?
2. Can we identify the children that will improve intellectually as a result of this program?
3. What age group or age groups will be intellectually benefited the most by such a pre-school regimen?
4. What are the procedures that induce the greatest intellectual gain and can these be applied to only special age groups?

3. Is this a temporary gain in mental functioning or will it persist over time?

4. Can additional acceleration be induced with continued effort to stimulate the mental growth pattern? Some of these questions may be answered by evaluating such efforts as the Follow-Through program for Headstart children who are in grades two to three.

Summary of Replies to Parent Questionnaire

The writer attempted to investigate in this study the relationship between disadvantaged parents' attitudes toward education and their expectations for their children. Replies to the items in Part II - School Aspirations and Expectations, of the parent questionnaire are summarized in Table IV in the Appendix. The majority of parents said that they

1. Wanted the child to complete the public school program and to go on to more education, either in an apprenticeship or other vocational situation, or in colleges (Items 1, 2).
2. Expected the children to make good grades, both in academic subjects and in citizenship (Items 3, 4).
3. Believed that the language arts including reading, had the greatest value for their children. A small number believed that school subjects

more taught should be omitted, or new subjects added (Items 3, 4, 11, 12).

4. Believed that school will be of much help to their children, that it meets their present needs, particularly in the academic areas, and future needs (Items 7, 8, 9, 10).
5. Believed that present school programs are about right, that discipline is average to good, that possibly more physical punishment should be worked out, and that in general it was judiciously used (Items 13, 14, 15).
6. Considered homework to be of value to children in school and that provision for it should be made (Items 16, 17, 18).
7. Attended P.T.A. and other school functions some or all of the time (Items 20, 21).

Responses to Items 19, the effect of the financial and social position of the family on the treatment of the child in school, 22, the question of school food relating activities, 23, the reasons that the child stays at home, 24, whether after school activities should be promoted, and 25, the place of testing programs in school, suggested that the parents had some background for evaluating the questions raised. The number of responses to each item is shown in Table IV as are the percentages for the different responses to the items. Many of these parents have, or

are coming to, the realization that education is one means that their children have to improve their status. There is doubt as to how this is to be accomplished and perhaps suspicion of those who are responsible for educating their children. Some of this is perhaps due to the unpleasant experiences that parents have had in school situations. Distrust may come from a lack of a basic understanding of the learning process and of the significance of education in a modern, literate society.

Involvement of the Parent of the Disadvantaged Child

Information gathered in this study indicates that the time to involve the parent of the disadvantaged child in the educational process is while the child is in the pre-school or kindergarten level. If parents can be involved early in the education of their children perhaps they will develop the positive attitudes toward formal education that will lend support to the activities of the school. Initial enthusiasm for school in the disadvantaged parent and child alike must be encouraged and sustained if education is to be seen as a continuous experience rather than a daily activity to be terminated as early as possible and certainly when the legal age for leaving school is reached. Teachers must work within these limitations. They must direct much of their efforts toward modifying characteristics that adversely affect the educational achievement of the disadvantaged child.

Adult School Activities

Traditional parent-teacher programs have not been very successful in involving parents of the disadvantaged in school activities. Other school programs appear to have much more utility in this area. Schools may involve the disadvantaged parent and other adults in the educational process. Adult education classes in developing basic learning skills and knowledge of the requirements for employment in higher level jobs could be combined with present programs. There may be other programs centering around the schools which people at the lower socio-economic levels can perceive as being of advantage to them.

In conclusion, many disadvantaged parents perceive education as a means of improving the lives of their children. It is a source of hope for them. They know that school can be an important factor in the future of their children despite negative attitudes they may have held in the past.

Education and the general public must make a real and continuing effort to provide school opportunities at pre-school through adult levels to social groups which have had little opportunity in the past. It seems now being gathered seems to indicate that such efforts are socially and economically advantageous to society.

APPENDIX

TABLE IV

Summary of the Replies to Questions on the
Parent Questionnaire
(N = 256)

Question	Number of Responses	Percentage
Part I - Personal Data		
1. Number of respondents in each family		
1. One	204	92
2. Two	32	5
3. Three	0	0
2. Relationship of respondent to child		
1. Mother	177	82
2. Father	69	13
3. Both	10	3
3. Locality		
1. Palmetto/Parrish	123	50
2. Brookstone	9	4
3. Suburban	10	4
4. Name of child		
Replaced by code number		
5. Sex of child		
1. Male	126	50
2. Female	130	50
6. Age of child		
1. 1 yrs.	72	13
2. 4 yrs.	72	13
3. 5 yrs.	72	13
7. Place of birth		
1. Local	154	60
2. State	11	6
3. Out-of-state	9	4

TABLE IV (Continued)

Question	Number of Responses	Percentage
8. Race of child		
1. Negro	211	98
2. White	4	2
3. Other	1	1
9. How many other children?		
No.	513	
Average per family	<u>2.5</u>	
10. How many in school?		
No.	432	
Average in family	<u>1.8</u>	
11. Distance from school		
1. Under 1 mile	106	49
2. 1 to 5 miles	72	43
3. 5 or more miles	18	8
12. Housing necessary		
1. Yes	90	33
2. No	168	77
13. Major illnesses		
1. None	190	88
2. One	22	12
3. Two or more	9	4
14. Were there any language		
1. No	213	99
2. Yes	1	1
15. A. Years of education (Fathers)		
Total	1777	
Average	<u>4.22</u>	
B. Years of education (Mothers)		
Total	2188	
Average	<u>3.73</u>	
16. Data for Warner Scale		

TABLE IV (Continued)

Question	Number of Responses	Percentage
17. Occupational skill level		
1. Unskilled	114	47
2. Semi-skilled	97	39
3. Skilled	25	12
18. Reported income		
1. Under \$2,000	74	35
2. \$2,000 to \$3,000	100	46
3. \$3,000 or more	20	9
19. Home ownership		
1. Yes	97	36
2. No	169	74
20. Car ownership		
1. Yes	141	65
2. No	79	35
21. TV ownership		
1. Yes	210	97
2. No	6	3
22. Lights and/or plumbing		
1. Yes	210	98
2. No	1	"
23. Family mobility in past 12 months		
1. No moves	174	81
2. 1 to 5 moves	42	19
3. 5 or more moves	4	2
24. Family moves in past 5 years		
1. No moves	84	39
2. 1 to 5 moves	129	60
3. 5 or more moves	3	1
25. Distance moved (average)		
1. Less than 5 miles	140	66
2. 5 to 30 miles	49	23
3. Over 30 miles	10	5

TABLE IV (Continued)

Question	Number of Responses	Percentage
Part II - School Aspirations and Expectations		
1. Grade child is expected to complete		
1. 1 to 5	8	4
2. 7 to 9	38	5
3. 10 to 12	188	87
2. Additional training/education		
1. Apprenticeship	36	17
2. Vocational	115	53
3. College	89	30
3. Expected grade average in academic subjects		
1. B or higher	141	76
2. C's	50	24
3. Less than C	9	9
4. Expected grade average in citizenship		
1. B or higher	180	74
2. C's	51	24
3. Less than C	3	2
5. Special school subjects having greatest utility and value		
1. Language Arts	118	52
2. Natural Sciences	72	32
3. Social Sciences	14	18
6. Subjects considered to be most important		
1. Arithmetic	64	30
2. Athletics (P.E.)	4	2
3. Reading	148	68
7. Group will be of:		
1. Much help	142	73
2. Some help	32	16
3. Little help	2	1
8. Future needs met by school		
1. Social	78	18
2. Personal	79	32
3. Education & other needs	111	51

TABLE IV (Continued)

Question	Number of Responses	Percentage
9. Degree school meets present needs		
1. A lot	122	96
2. Some	9	4
3. Little	1	1
10. Present needs met by school		
1. Academic	151	73
2. Vocational	62	29
3. Other	3	1
11. Are there school subjects that could be omitted?		
1. Yes	11	5
2. No	243	95
12. Are there school subjects that could be added?		
1. Yes	18	15
2. No	177	85
13. Present school programs are:		
1. Too modern	14	6
2. About right	187	87
3. Too old-fashioned	13	7
14. Discipline in school is:		
1. Good	87	31
2. Average	209	69
3. Poor	44	20
15. Physical punishment should be:		
1. Less	11	6
2. More	147	58
3. None	84	43
16. Value of homework is:		
1. Lot	132	65
2. Some	86	40
3. None	6	3
17. Amount of homework should be:		
1. A lot	68	43
2. Some	116	65
3. None	6	3

TABLE IV (Continued)

Question	Number of Responses	Percentage
18. A place to do homework is of:		
1. Great importance	102	84
2. Some importance	34	14
3. Little or no importance	0	0
19. Parental and social position determines treatment of		
1. ^{child} Very much	90	18
2. Some	88	41
3. Little or none	90	41
20. Attend P.T.A. meetings		
1. Most of the time	86	80
2. Some of the time	120	80
3. None of the time	0	0
21. Attend Open House, conferences, and other meetings		
1. Most of the time	81	43
2. Some of the time	123	94
3. None of the time	1	1
22. Funds and fee raising activities required		
1. Too much money	70	34
2. About right amount	120	83
3. Too little to meet needs	0	1
23. Child stays home		
1. Only when ill	160	14
2. When needed	54	45
3. Other	2	1
24. After-school activities for child		
1. A lot	89	30
2. Some	148	69
3. None	1	1
25. Tests and testing program should be:		
1. Increased	90	0
2. Remain the same	100	90
3. Decreased	1	1

TABLE V

Comparison of Information from Parents of Children
in the Control and Experimental Groups

Question	Control Group (N-100)		Experimental Group (N-100)	
	Cases	Means	Cases	Means
Part I - Personal Data				
1. Number of respondents in each family				
(1.)	100		104	
(2.)	8		4	
(3.)	0	1.06	0	1.04
2. Relationship to child				
(1.) Mother	95		92	
(2.) Father	17		12	
(3.) Both	8	1.25	4	1.19
3. Address				
(1.) Palmetto/Harrisburg	32		103	
(2.) Charleston	3		4	
(3.) Suburban	11	1.25	1	1.04
4, 5, and 6 Omitted				
7. Place of birth				
(1.) Local	100		98	
(2.) State	4		5	
(3.) Out-of-state	2	1.07	7	1.01
8. Race of child				
(1.) Negro	107		104	
(2.) White	1		1	
(3.) Other	0	1.02	1	1.03
9. and 10. Omitted				
11. Distance from school				
(1.) Under 1 mile	45		41	
(2.) 1 to 3 miles	50		42	
(3.) 3 or more miles	13	1.79	9	1.43

TABLE V (Continued)

Question	Control Group (N=104)		Experimental Group (N=104)	
	Count	Mean	Count	Mean
12. Housing				
(1.) Yes	30		30	
(2.) No	74	1.72	74	1.69
13. Major illness				
(1.) None	100		90	
(2.) One	3		13	
(3.) Two or more	0	1.07	0	1.17
14. More than one language				
(1.) No	107		104	
(2.) Yes	1	1.01	2	1.02
15 and 16 Omitted				
17. Skill level of principal wage earner				
(1.) Unskilled	57		57	
(2.) Semi-skilled	30		27	
(3.) Skilled	11	1.48	14	1.51
18. Reported income for last year				
(1.) Under \$2,000	14		42	
(2.) \$2,000 to \$3,000	42		54	
(3.) \$3,000 or more	12	1.80	8	1.69
19. Home ownership				
(1.) Yes	57		30	
(2.) No	44	1.75	74	1.72
20. Car ownership				
(1.) Yes	77		64	
(2.) No	30	1.29	44	1.41
21. TV ownership				
(1.) Yes	107		104	
(2.) No	1	1.01	0	1.02

TABLE V (Continued)

Question	Control Group (N=168)		Experimental Group (N=108)	
	Count	Mean	Count	Mean
12. Nights and phoning				
(1.) Yes	507		508	
(2.) No	1	1.00	0	1.00
13. Family mobility in past 12 months				
(1.) No moves	88		86	
(2.) 1 to 3 moves	80		88	
(3.) 3 or more moves	0	1.13	0	1.11
14. Family mobility in past 5 years				
(1.) No moves	59		14	
(2.) 1 to 3 moves	34		73	
(3.) 3 or more moves	3	1.56	1	1.61
15. Approximate distance of moves				
(1.) Less than 5 miles	76		73	
(2.) 5 to 50 miles	34		85	
(3.) Over 50 miles	0	1.37	10	1.45
Part II - School Data				
1. Grade child is expected to complete				
(1.) 1 to 6	0		0	
(2.) 7 to 9	11		3	
(3.) 10 to 12	89	1.81	99	2.00
2. Additional education/training				
(1.) Apprenticeship	17		18	
(2.) Vocational	64		41	
(3.) College	27	2.09	34	2.11
3. Expected grade average in academic subjects				
(1.) A/B	74		90	
(2.) C	34		16	
(3.) Less than C	0	1.31	0	1.13
4. Expected grade average in citizenship				
(1.) A/B	77		51	
(2.) C	29		28	
(3.) Less than C	2	1.23	3	1.15

TABLE 7 (Continued)

Question	Control Group (N=220)		Experimental Group (N=220)	
	Count	Mean	Count	Mean
3. School subjects with greatest utility and value				
(1.) Language arts	56		56	
(2.) Science and Mathematics	34		36	
(3.) Social Sciences	18	1.65	16	1.54
4. Subjects which are considered most important				
(1.) Arithmetic	30		34	
(2.) Athletics (P.E.)	1		1	
(3.) Reading	75	2.38	73	2.34
7. What child will learn in school will be				
(1.) Much help	78		88	
(2.) Some help	37		13	
(3.) Little help	1	1.34	1	1.16
8. Future needs of child are				
(1.) Social	17		18	
(2.) Personal	34		34	
(3.) Academic/Other	59	2.35	56	2.35
9. Degree school meets present needs				
(1.) A lot	53		49	
(2.) Some	54		39	
(3.) Little	1	1.52	0	1.34
10. Present needs met by school				
(1.) Academic	78		78	
(2.) Vocational	34		34	
(3.) Other	0	1.33	0	1.33
11. Are there school subjects that could be omitted?				
(1.) Yes	4		7	
(2.) No	104	1.96	101	1.94
12. Are there subjects that could be added?				
(1.) Yes	15		24	
(2.) No	93	1.64	84	1.78

TABLE V (Continued)

Question	Control Group (n=225)		Experimental Group (n=108)	
	Score	Mean	Score	Mean
13. Present school programs are:				
(1.) Too modern	8		8	
(2.) About right	58		59	
(3.) Too old-fashioned	4	1.08	11	1.02
14. Discipline in school is:				
(1.) Good	14		33	
(2.) Average	49		58	
(3.) Poor	37	1.32	19	1.23
15. Physical punishment should be:				
(1.) Less	6		7	
(2.) Same	92		52	
(3.) More	37	2.22	47	2.19
16. Value of homework is:				
(1.) Lot	51		77	
(2.) Some	59		31	
(3.) None	0	1.31	0	1.29
17. Amount of homework should be:				
(1.) Lot	45		53	
(2.) Same	43		50	
(3.) None	0	1.58	0	1.39
18. A place to do homework is at:				
(1.) Great importance	67		55	
(2.) Little importance	29		41	
(3.) No importance	0	1.19	0	1.18
19. Physical and social position determine treatment of child:				
(1.) Very much	39		18	
(2.) Some	46		49	
(3.) Little or none	42	2.20	48	2.20
20. Attend P.T.A. Meetings:				
(1.) Most of time	36		48	
(2.) Some of time	70		60	
(3.) None of time	0	1.65	0	1.56

TABLE V (Continued)

Question	Control Group (8-100)		Experimental Group (8-100)	
	Score	Mean	Score	Mean
21. Attend open house, conferences, etc.				
(1.) Most of time	40		50	
(2.) Some of time	44		54	
(3.) None of time	0	1.61	1	1.54
22. Schools require parents to pay				
(1.) Too much	57		30	
(2.) About right	34		70	
(3.) Too little	0	1.53	1	1.78
23. Child stays home when				
(1.) Ill only	70		80	
(2.) When needed	13		21	
(3.) Other	0	1.32	0	1.03
24. School should provide after school activities				
(1.) Not	30		10	
(2.) Some	50		70	
(3.) Much	1	1.71	0	1.71
25. Test and testing program should be				
(1.) Increased	7		13	
(2.) Same	101		84	
(3.) Decreased	0	1.94	1	1.89

TABLE VI

Means, Differences of Means, Critical Ratios (t), and Probabilities (p) of Differences on Thirty-Five Items for the Control and the Experimental Groups

Question	Mean of Control Group (N=500)	Mean of Experimental Group (N=100)	Differences	t	p
Part I - Personal Data					
1. Number of respondents					
	1.00	1.04	.04	1.863	.07
2. Relationship to child					
	1.76	1.19	.09	1.468	.15
3. Address					
	1.25	1.24	.19	1.717	.09
4. Place of birth					
	1.97	1.81	.14	1.700	.09
5. Race of child					
	1.82	1.09	.03	1.918	.06
11. Distance from school					
	1.79	1.48	.22	.790	.43
13. Major illness					
	1.07	1.17	.18	1.081	.28
17. Skill level of principal wage-earner					
	1.48	1.51	.03	.968	.33
18. Reported income for last year					
	1.89	1.69	.21	.811	.42
23. Family mobility in past 12 months					
	1.19	1.21	.02	1.494	.14

TABLE VI (Continued)

Question	Mean of Control Group (N=100)	Mean of Experimental Group (N=100)	Differences	t	p
24. Family stability in past 5 years	1.96	1.69	.13	1.658	.4
25. Approximate distance of move	1.37	1.43	.06	1.148	.4
Part II - School Data					
1. Grade child is expected to complete	2.82	2.90	.09	1.021	.3
2. Additional education/training	2.09	2.13	.03	.679	.4
3. Expected grade average in academic subjects	1.31	1.13	.18	1.388	.3
4. Expected grade average in citizenship	1.29	1.13	.16	1.351	.3
5. School subjects with greatest utility and value	1.43	1.44	.01	.027	.4
6. Subjects which are considered the most important	2.38	2.36	.02	1.181	.3
7. Value of what the child will learn in school	1.36	1.13	.23	1.389	.3
8. Future needs of child the school will meet	2.39	2.35	.04	.621	.4
9. Present needs of the child the school will meet	1.32	1.34	.02	1.043	.4

TABLE VI (Continued)

Question	Mean of Control Group (8-105)	Mean of Experimental Group (9-168)	Differences	t	p
12. Present means the school does best					
	2.15	1.39	.03	1.203	.3
13. Currentness of present school program					
	1.95	1.02	.04	1.602	.2
14. School discipline					
	1.92	1.08	.04	.525	.7
15. Physical environment					
	2.29	2.39	.12	.880	.5
16. Value of homework					
	1.54	1.29	.02	1.125	.4
17. Amount of homework					
	1.58	1.51	.07	1.000	.4
18. Place to do homework					
	1.19	1.12	.07	1.557	.2
19. Financial and social positions of parents					
	2.20	2.28	.08	.480	.7
20. P.T.A. Attendance					
	1.45	1.56	.09	1.272	.4
21. Attendance at school functions					
	1.41	1.54	.07	1.025	.4
22. PTA meals, etc.					
	1.57	1.72	.15	1.108	.4

TABLE VI (Continued)

Question	Mean of Control Group (N=500)	Mean of Experimental Group (N=100)	Difference	t	p
13. Compulsory attendance, illness, etc.	1.31	1.83	.52	1.304	.3
14. After-school activities	1.71	1.71	.00	1.107	.3
15. Group and standardized test programs	1.84	1.89	.05	1.718	.2

TABLE VII

Mean and Variance on All Derived
Subjects on Philip-Dev Variables

Number of Variables	Mean	Variance
1. Warner Number	69.54	19.66
Part I - Parent Questionnaire		
2. Number of respondents	1.84	0.09
3. Relationship to child	1.38	0.13
4. Location of home	1.25	0.18
5. Sex	1.50	0.25
6. Age of child	2.00	0.67
7. Place of birth	1.67	0.11
8. Race of child	1.02	0.04
9. Other children	1.81	4.20
10. Other children in school	1.94	2.63
11. Distance to school	1.70	0.45
12. Traveling necessary	1.72	0.20
13. Number of major illnesses	1.07	0.07
14. More than one language spoken	1.01	0.01
15. Grade completed by father	7.87	7.89
16. Grade completed by mother	9.51	1.99
17. Skill level of principal wage-earner	1.43	0.45
18. Reported income last year	1.80	0.38
19. Home ownership	1.75	0.23
20. Car ownership	1.29	0.22

TABLE VII (Continued)

Number of Variables	Mean	Variance
21. TV ownership	2.02	0.001
22. Lights and plumbing	2.00	0.02
23. Family mobility in past 12 months	2.15	0.15
24. Family mobility in past 5 years	2.34	0.25
25. Average distance in mile(s) to school	2.37	0.35
Part II - Parent Questionnaire		
26. Grade skills is expected to complete	2.42	0.17
27. Additional training/education	2.00	0.40
28. Grade average expected in academic subjects	2.32	0.22
29. Grade average expected in extracurricular	2.00	0.00
30. School subjects having greatest utility and value	2.03	0.56
31. School subjects considered most important	2.30	0.25
32. Value of education in the future	2.36	0.25
33. Future needs set by school	2.35	0.34
34. School meets personal needs	2.52	0.27
35. Foremost needs of child	2.15	0.22
36. School subjects to be omitted	2.54	0.04
37. School subjects to be added	2.44	0.12

TABLE VII (Continued)

Number of Variable	Mean	Variance
38. Measure of current school progress	1.58	0.09
39. Quality of discipline in schools	1.32	0.34
40. Use of physical punishment	2.23	0.32
41. Value of homework	1.51	0.25
42. Amount of homework	1.50	0.24
43. Place to do homework	1.13	0.16
44. Importance of social position	2.20	0.53
45. Attendance at P.T.A. meetings	1.05	0.23
46. Attendance at Open House, etc.	1.01	0.24
47. Fees and fund-raising activities of school	1.37	0.26
48. Compulsory school attendance	1.31	0.21
49. After-school activities	1.71	0.23
50. School testing program	1.84	0.36
51. Initial Intelligence Quotient	70.89	121.13
52. Re-Test Intelligence Quotient	69.94	140.89
53. Special Class Index Number	69.94	19.66
54. Total Part I of Parent Questionnaire	120.19	62.79
55. Total Part II of Parent Questionnaire	44.36	15.33
56. Grand Total of Parent Questionnaire	164.55	46.33

TABLE VIII

Mean and Variance on All Experimental
Subjects on Fifty-Six Variables

Number of Variable	Mean	Variance
1. Warner Number	88.82	16.59
Part I - Parent Questionnaire		
2. Number of respondents	1.84	0.44
3. Relationship to child	1.19	0.38
4. Location of home	1.86	0.89
5. Sex	1.58	0.35
6. Age of child	2.09	0.67
7. Place of birth	1.71	0.30
8. Race of child	1.05	0.04
9. Other children	1.72	4.46
10. Other children in school	2.94	2.02
11. Distance to school	1.68	0.34
12. Housing necessary	1.80	0.18
13. Number of major illnesses	1.27	0.14
14. More than one language spoken	1.02	0.02
15. Grade completed by father	8.58	6.85
16. Grade completed by mother	10.86	4.15
17. Skill level of principal high- schooler	1.51	0.31
18. Reported income last year	1.69	0.36
19. Home ownership	1.72	0.30
20. Car ownership	1.41	0.34
21. TV ownership	1.96	0.05

TABLE VIII (Continued)

Number of Variable	Mean	Variance
22. Lacks and plucking	1.03	0.81
23. Family mobility in past 12 months	1.81	0.17
24. Family mobility in past 3 years	1.49	0.23
25. Average distance of nearest to miles	1.41	0.43
Part II - Parent Questionnaire		
26. Grade child is expected to complete	2.90	0.11
27. Additional training/education	2.12	0.90
28. Grade average expected in academic subjects	1.19	0.13
29. Grade average expected in citizenship	1.14	0.14
30. School subjects having greatest utility and value	1.64	0.53
31. School subjects considered most important	2.36	0.84
32. Value of education in future	1.14	0.43
33. Future needs met by school	2.13	0.94
34. School meets present needs	1.36	0.23
35. Present needs of child	1.30	0.26
36. School subjects to be omitted	1.94	0.24
37. School subjects to be added	2.78	0.17
38. Modernness of current school program	2.02	0.18
39. Quality of discipline in schools	1.66	0.46

TABLE VIII (Continued)

Number of Variables	Mean	Variance
40. Use of physical punishment	2.39	0.39
41. Value of homework	1.29	0.20
42. Amount of homework	1.51	0.25
43. Place in do homework	1.12	0.11
44. Importance of social position	2.25	0.53
45. Attendance at P.T.A. meetings	1.56	0.55
46. Attendance at Open House, etc.	1.34	0.27
47. Free and paid-raising activities of school	1.72	0.22
48. Compulsory school attendance	1.23	0.21
49. After-school activities	1.71	0.34
50. School testing program	1.45	0.12
51. Initial Intelligence Quotient	78.12	249.72
52. Re-Test Intelligence Quotient	86.79	222.45
53. Social Class Index Number	65.82	16.54
54. Total Part I of Parent Questionnaire	120.95	30.22
55. Total Part II of Parent Questionnaire	45.44	12.77
56. Grand Total of Parent Questionnaire	166.39	37.49

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EDUCATIONAL SERVICE

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This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Education and to the Graduate Council and was approved as partial fulfillment of the requirements for the degree of Doctor of Education.

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